What the invention claimed is:

1. A method for the formation of laminated circuit having passive components therein, comprising the steps of:

a) using a software in a computer to design a laminated circuit comprised of electrically insulative substrates, electric circuits, and passive components;

b) recording the circuit layout of said laminated circuit into a data file subject to a predetermined format;

c) inputting said data file into a laminated circuit forming apparatus comprised of a main control unit, a platform, an insulative material sprayer, a conductive material sprayer, an impedance material sprayer, and a driving unit;

d) operating the main control unit of said laminated circuit forming apparatus to convert the inputted data file into sequential control signals to drive said driving unit, causing said driving unit to move said platform, said insulative material sprayer, said conductive material sprayer, and said impedance material sprayer relative to one another, and to drive said insulative material sprayer, said conductive material sprayer, and said impedance material sprayer to eject respective fluid insulative material,

fluid conductive material and fluid impedance material onto said platform at different times and locations subject to said sequential control signals, forming the desired laminated circuit having an insulative body and electric circuits and passive components embedded in the insulative body.

2. The method as defined in claim 1, wherein said laminated circuit is comprised of at least two laminated flat circuit layers, said flat circuit layers each comprising an electrically insulative substrate having a bottom side and a top side, and the components circuits and passive components embedded in the bottom side of the electrically insulative substrate, the electric circuits of one flat circuit layer in a lower side of said laminated circuit having protruded connecting portions extended to the top side of the respective electrically insulative substrate and connected to the circuits of the flat circuit layer above; said laminated circuit forming apparatus is controlled to form the flat circuit layers of said laminated circuit from a bottom side toward a top side layer by layer in the sequence of forming the circuits and passive components for one flat circuit layer and then forming the electrically insulative substrate for the respective flat circuit layer.

3. The method as defined in claim 1, wherein said laminated circuit is comprised of at least two laminated flat circuit

layers, said flat circuit layers each comprising an electrically insulative substrate having a bottom side and a top side, and the electric circuits and passive components embedded in the electrically insulative substrate in flush with the top and bottom sides of the electrically insulative substrate, the electric circuits of one flat circuit layer being connected to the electric circuits of another flat circuit layer at predetermined coordinates; said laminated circuit forming apparatus is controlled to form the flat circuit layers of said laminated circuit from a bottom side toward a top side layer by layer.

4. The method as defined in claim 1, wherein said laminated circuit has said circuits or said passive components protruded over a top surface thereof.

5. The method as defined in claim 1, wherein said insulative material sprayer is controlled to eject fluid engineering plastics to form the electrically insulative substrate for each flat circuit layer of said laminated circuit.

6. The method as defined in claim 1, wherein said conductive material sprayer is controlled to eject fluid tin silver alloy to form said electric circuits in said laminated circuit.

7. The method as defined in claim 1, wherein said impedance material sprayer is controlled to eject fluid graphite to form said passive components in said laminated circuit.

8. The method as defined in claim 1, wherein said impedance material sprayer is controlled to eject different concentrations of fluid impedance material to form resistors of different impedance value in said laminated circuit.

9. The method as defined in claim 1, wherein said impedance material sprayer, said insulative material sprayer, and said conductive material sprayer are controlled to eject different concentrations of fluid impedance material, fluid insulative material, and fluid conductive material to form inductors of different impedance value in said laminated circuit.

10. The method as defined in claim 1, wherein said impedance material sprayer, said insulative material sprayer, and said conductive material sprayer are controlled to eject different concentrations of fluid impedance material, fluid insulative material, and fluid conductive material to form capacitors of different capacitance value in said laminated circuit.

~~11.~~ An apparatus for the formation of laminated circuit having passive components therein, said apparatus comprising:

a platform;

an insulative material sprayer, said insulative material sprayer comprising a jet nozzle suspended above said platform and adapted to eject fluid insulative material downwardly onto said platform;

a conductive material sprayer, said conductive material sprayer comprising a jet nozzle suspended above said platform and adapted to eject fluid conductive material downwardly onto said platform;

an impedance material sprayer, said impedance material sprayer comprising a jet nozzle suspended above said platform and adapted to eject fluid impedance material downwardly onto said platform;

a driving unit adapted to move said platform, said insulative material sprayer, conductive material sprayer, and impedance material sprayer relative to one another; and

a main control unit adapted to covert a data file of a predetermined format recording the circuit layout of a laminated circuit into sequential control signals to control the operation of said driving unit, causing said driving unit to move said platform, said insulative material sprayer, said conductive material sprayer, and said impedance material sprayer relative to one another, and to control said insulative material sprayer, said conductive material sprayer, and said impedance material sprayer to eject the respective fluid insulative material, fluid conductive material, and fluid impedance material onto said platform at times and locations subject to said sequential control signals to form the desired laminated circuit.

12. The apparatus as defined in claim 11, wherein the jet nozzle of said insulative material sprayer is adapted to eject fluid engineering plastics onto said platform.

13. The apparatus as defined in claim 11, wherein the jet nozzle of said conductive material sprayer is adapted to eject fluid tin silver alloy onto said platform.

14. The apparatus as defined in claim 11, wherein the jet nozzle of said impedance material sprayer is adapted to eject fluid graphite onto said platform.

15. The apparatus as defined in claim 11, wherein the jet nozzle of said impedance material sprayer is controllable to eject different concentrations of fluid impedance material.

16. The apparatus as defined in claim 11, wherein said insulative material sprayer, said conductive material sprayer, and said impedance material sprayer each have a plurality of storage tanks connected to the respective jet nozzle to provide different concentrations of fluid material.